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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,611	08/25/2003	Senis Busayapongchai	60027.0322US01/BS030093	2844

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EXAMINER	
SHAH, PARAS D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/647,611	BUSAYAPONGCHAI, SENIS	
	Examiner	Art Unit	
	PARAS SHAH	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Arguments filed on 05/16/2009. Claims 1, 3-11 remain pending and have been examined. The Applicants' amendment and remarks have been carefully considered, but they are not persuasive and do not place the claims in condition for allowance.

2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/16/2009 has been entered.

Response to Amendment and Arguments

4. Applicant's arguments, see pages 5-7, filed 05/16/2009, with respect to the rejection(s) of claim(s) 1, 3-11 under 103(a) have been fully considered with respect to the newly added amendments but they are moot in view of new grounds for rejection Specifically, the newly added limitations of "without receiving an additional keypad entry of plural alphabetic characters using a DTMF key tone for each character".

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear in the limitation of claim 1, lines 11, "an additional keypad entry of plural alphabetic characters," if the additional keypad entry is a key pad entry of new plural alphabetic characters or if the additional entry corresponds to the first keypad entry of plural alphabetic characters. For the purpose of compact prosecution, the limitation was interpreted to be a key pad entry of new plural alphabetic characters.

7. Claims 3-11 are rejected for being dependent upon an indefinite base claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 3, 4, 8-10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brotman *et al*. (US 5,917,889), hereinafter Brotman *et al.* (889) in view of Denenberg et al. (US 6,728,348), hereinafter, Denenberg.

As to claim 1, Brotman *et al.* (889) teaches a method for

receiving an initial input comprising a first keypad entry of plural alphabetic characters using a dual-tone multi-frequency (DTMF) key tone for each of the characters (see col. 4, lines 16-20, where the user depresses DTMF keys corresponding to a string of words);

playing back the keypad entry to the user (see col. 5, lines 48-51, where the system inquires whether the generated string is correct) and querying the user to determine whether the entered keypad character input is correct (see col. 5, lines 56-57, where the user answers yes/no);

if input received from the user indicates that the keypad entry played back to the user does not match the entered keypad character input (see col. 5, lines 65-col. 6, lines 6, it is determined whether the generated string corresponds to the intended string and if it does not the user re-enters string);

loading a speech recognition grammar associated with possible alphabetic characters that correspond to the DTMF character input by the user (see col. 5, lines 10-17, where the system accesses a subset of stored signals indicating the DTMF input);and

prompting the user to speak the previously entered alphabetic characters (see col. 4, lines 60-65, where the user utters the entered string) without receiving an additional keypad entry of plural alphabetic characters using a DTMF key tone for each character (see Figure 2, after the output of step 720

where instructions are given to try again, see step 640, where after the DTMF input the user is prompted for alpha character);

receiving and recognizing user speech with the loaded speech recognition grammar(see col. 5, lines 8-25, where the uttered characters are used in disambiguating among the DTMF input, from the allowed character set for matching and see col.. 4, lines 36-41 and see col. 5, lines 18-25, where a best match between the stored signals and the utterance is determined for the best alphabetic character);

prompting the user to verify an identified character string as a correct character string (see col. 5, lines 48-59, where the user verifies the identified character string.).

However, Brotman does not specifically teach the speech recognition grammars associated with possible alphabetic character combinations.

Denenberg teaches the speech recognition grammars associated with possible alphabetic character combinations (see col. 5, lines 61-col. 6, lines 15, where the dictionary generator generates grammar using possible character combinations and is used for recognizing the user utterance).

It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have modified the disambiguation as taught by Brotman with the speech grammar with possible character combinations as taught by Denenberg to provide a system that outputs a multiple possible words from limited text (see Denenberg col. 1, 10-16).

As to claims 3 and 4, Brotman *et al.* (889) in view of Denenberg teach all of the limitations as in claims 1 and 2.

Furthermore, Brotman *et al.* (889) teaches a system that uses alphabetic (see abstract) letters for input by user (see Figure 2, element 610) in a speech recognition engine. (e.g. It should be noted that the reference does not specifically state the letters of the alphabet, the reference incorporates the English alphabet as input to the speech recognizer. It would be obvious to include the letters a-z in the alphabet).

As to claims 8-10, Brotman *et al. (*889) in view of Denenberg teach all of the limitations as in claims 1 and 2.

Furthermore, Brotman *et al.* (889) teaches a method whereby the alphabetic character input received involves the use of DTMF key tones (see col. 5, line 5), which include numbers (see col. 4, lines 18-25). It is inherent for a telephone keypad to include numbers 1-9.)

As to claim 11, Brotman *et al .*(889) in view of Denenberg teach all of the limitations as in claims 1, 2, and 8-10.

Furthermore, Brotman teaches wherein the set of alphabetic characters includes all alphabetic characters associated wit the DTMF key tones (see col. 4,

lines 36-41, where each number has a characteristic set of characters associated with it).

10. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brotman *et al*. (889) in view of Denenberg, as applied to claim 4, above and in further in view of Hartley *et al.* (US 6,975,986).

As to claim 5, Brotman *et al. (*889) in view of Denenberg *et al.* teach all of the limitations as in claims 1-4.

Furthermore, Brotman teaches prompting the user to verify an identified character string (see col. 5, lines 48-59, where the user verifies the identified character string.).

However, Brotman in view of Denenberg does not specifically teach the inclusion of phonetic version of the alphabetic characters.

Hartley *et al.* teaches the inclusion of phonetic versions of alphabetic characters in the grammar (see col. 4, lines, 46-50, alpha grammar loaded) for voice spelling.

It would have been obvious to one of ordinary skilled in the art to have modified the speech recognition engine shown by Brotman *et al.* (889) in view of Denenberg *et al.* with the inclusion of phonetic alternatives as taught by Hartley *et al.* for the purpose of correctly identifying user input in an audio interface (see Hartley *et al.*, col. 2, line 12-17).

As to claim 6, Brotman *et al. (*889) in view of Denenberg *et al.* in view of Hartley teach all of the limitations as in claim 5, above.

Furthermore, Hartley teaches wherein the alphabetic character input received from the user includes plural alphabetic characters (see col. 4, lines 32-35,where a voice spelling of a string of characters are input) from the set of alphabetic characters (see col. 4, lines 37-40, 50-62, where the alpha grammar is utilized during voice spelling consisting of alpha, bravo, etc.)

As to claim 7, Brotman *et al. (*889) in view of Denenberg *et al.* in view of Hartley teach all of the limitations as in claim 6, above.

Furthermore, Hartley teaches wherein the alphabetic character input received from the user includes one or more combinations of alphabetic characters from the set of alphabetic characters (see col. 4, lines 37-40, 50-62, where the alpha grammar is utilized during voice spelling consisting of alpha, bravo, etc. and see col. 4, lines 32-35) (e.g. Based on string, the alpha grammar is used for voice spelling. It is obvious that one ore more types from the alpha grammar is utilized when the alpha grammar is invoked).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Connolly et al. (US 6,346,894) is cited to disclose intelligent text entry on a numeric keypad, where a character is not an intended character then the user iterates through choices. Junqua et al. (US 7,124,085) is cited to disclose a constraint based speech recognition that is based on nonspeech input. Vandermeijden (US 7,143,043) is cited to disclose resolving ambiguous keys using voice input. Mault (US 2003/0163321) is cited to disclose speech recognition using various inputs for a personal digital assistant.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

/Paras Shah/
Examiner, Art Unit 2626

08/05/2009